--A more complete understanding of the invention may be gained by reading the subsequent detailed description with reference to the drawings wherein:

FIG. 1 is a simplified block diagram of a typical transmitter using Space Time Transit Diversity (STTD) of the present invention;

FIG. 2 is a block diagram showing signal flow in an STTD encoder of the present invention that may be used with the transmitter of FIG. 1;

FIG. 3 is a schematic diagram of a phase correction circuit of the present invention that may be used with a receiver as in figure 8;

FIG. 4A is a simulation showing STTD performance compared to Time Switched Time Diversity (TSTD) for a vehicular rate of 3 kmph;

FIG. 4B is a simulation showing STTD performance compared to TSTD for a vehicular rate of 120 kmph;

FIG. 5 is a block diagram showing signal flow in an OTD encoder of the prior art;

FIG. 6 is a block diagram of a despreader input circuit of the prior art that may be used with a receiver as in figure 8;

FIG. 7 is a schematic diagram of a phase correction circuit of the prior art; and

FIG. 8 is a space time block coded receiver of the present invention.--

Insert the following paragraph after line 24 on page 5.

--Referring now to FIG. 8, there is a space time block coded receiver of the present invention. The receiver includes despreader circuit 800 coupled to receive respective path-specific signals $r_j(i+\tau_j)$ for the i^{th} chip corresponding to paths j. These path-specific signals include a first input signal from a first antenna ANT 1 (FIG. 2) and a second input signal from a second antenna ANT 2. The first input signal is transmitted along plural signal paths, each of the plural signal paths having a respective channel characteristic α_1^1 through α_j^1. The second input signal is also transmitted along respective plural signal paths, each having a respective channel characteristic α_1^2 through α_j^2. The despreader circuit (FIG. 8) produces and applies respective signals, for example signals R_j^1 and R_j^2 at leads 832 and

834, to phase correction circuit 810. Signal R_j^1 includes j symbols received at a first time from antenna ANT 1 according to equation [5]. Signal R_j^2 includes j symbols received at a second time from antenna ANT 2 according to equation [6]. The phase correction circuit is coupled to receive respective input signals and path-specific estimate signals, for example input signals R_j^1 and R_j^2, a first plurality of estimate signals and estimate signals α_j^{1*} and α_j^2 at phase correction circuit 810. The phase correction circuit produces and applies respective symbol estimates according to equations [7-8], for example first and second symbol estimates S_j^1 and S_j^2 at leads 836 and 838, to rake combiner circuits 820 and 822. The plurality of first symbol estimates S_j^1 correspond to the j signal paths from antenna ANT 1 and include a first symbol estimate S_1^1. The plurality of second symbol estimates S_j^2 correspond to the j signal paths from antenna ANT 2 and include a second symbol estimate S_1^2. Rake combiner circuit 820 sums first symbol estimates from each path of the phase correction circuit and produces a first symbol signal $\tilde{S}_1$ at lead 824 according to equation [9]. Likewise, rake combiner circuit 822 sums second symbol estimates from each path of the phase correction circuit and produces a second symbol signal $\tilde{S}_2$ at lead 826 according to equation [10].--

Rewrite the paragraph at page 5, line 26, as follows.

Referring now to FIG. 3, there is a schematic diagram of a phase correction circuit of the present invention that may be used with a remote mobile receiver as in figure 8. This phase correction circuit receives signals R_j^1 and R_j^2 as input signals on leads 610 and 614 as shown in equations [5-6], respectively.